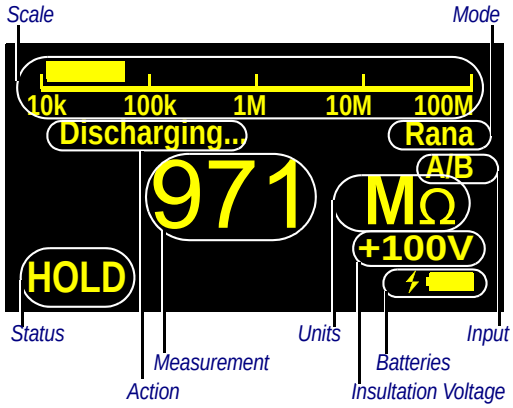
ALBEDO Telecom

in test we trust



Metro.ISO it is a next generation Insulation Measuring instrument designed and manufactured in Europe with the last technology available in 2014. It can test Insulation-Resistance, Capacitance, AC / DC Voltage, Cable test, Selectable measuring lead pairs.

Datasheet

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ALBEDO Metro.ISO

Metro.ISO is a modern and well prepared instrument for engineers working in electrical and telecom installations, at factory, the central office or the field.

[Metro.ISO is compliant with IEC61010 CATIII 600V]

1. CONFIGURATION

1.1 Insulation-Resistance (analog)

- *Display-Range*: logarithm scaled
- Measuring rate: > 10/s
- Same technical data as Insulation-Resistance (digital)

1.2 Insulation-Resistance (digital)

- *Range*: 0...9.99 MΩ / 10...99.9 MΩ
- *Display-Range*: 0...19.99 MΩ / 0...199.9 MΩ
- *Resolution*: 10 kΩ / 100 kΩ
- *Limits of error*: 0...9.99MΩ : ±2.5 %
  Limits of error: 10MΩ...49.99MΩ : ±5 %
  Limits of error: 50MΩ...99.99MΩ : ±10 %
- Automaticaly discharging in hold position
- *Measuring voltage:* 100V DC (+0% ... 10%) (Polarity-change possible)
- *Short circuit current*: ≤1 mA
- Input resistance: approx. 100 kΩ
- Max. overload: U_{eff} = 600 V
- Max. interference voltage: U_{eff} ≤ 10 V

1.3 DC-Voltage measurement

- *Range*: 0...500 V
- *Display-Range*: 0...1000V
- *Resolution*: 1V
- *Limits of error*: ± (1% of m.v.+1 dig.)
- Input resistance: 1 MΩ
- Max. overload: U_{eff} = 600 V

1.4 AC-Voltage measurement

- *Range*: 0...500 V
- *Display-Range*: 0...1000V
- *Resolution*: 1V
- *Frequency range:* 40-400 Hz
- *Limits of error*: ± (1% of m.v.+1 dig.)
- Input resistance: 1 MΩ
- Max. overload: U_{eff} = 600 V

1.5 Capacitance measurement

- *Range*: 0...10.000 nF / 0...1000.0 nF
- *Display-Range*: 0...19.999 nF / 0...1999.9 nF
- *Resolution*: 1 pF / 100 pF
- *Limits of error*: ± (1 % of m.v. +10 dig.)
  ± (0.5% + 30 dig.) 18...28° C
- *Additional error at parallel resistance*:
  10 000 nF / 100 kΩ resp.
  1000.0 nF / 33 kΩ ≤1 % of range

- Measuring voltage: U_{PP} = 2 V, Square-wave
- Max. overload: U_{eff} = 250 V

1.6 Fault-Location (for cable-break)

- *Range*: 1...20,000 m
- *Display-Range*: 0...19,999 m
- *Resolution*: 1 m
- *Limits of error*: ± (1 % of m.v. +1 dig.)
- *Principle Measurement*: Measurement of capacitance
- All data are the same as Capacitance measurement

1.7 Resistance measurement

- *Range*: 100...10000 Ω
- *Display-Range*: 0...19999 Ω
- *Resolution*: 1 Ω
- *Limits of error*: 100Ω...999Ω : ±10 %
  Limits of error: 1kΩ...9.99kΩ : ±5 %
  Limits of error: 10kΩ...99.99kΩ : ±2.5 %
- *Open circuit voltage*: 5 V / DC
- *Measuring current*: 100 µA / DC
- *Max. overload*: U_{eff} = 250 V

2. General

2.1 Ergonomics

- Display: OLED 2.5 inches, 64x128 pixels
- LED: 9 on/off
- Fan-less case
- Perimetral rubber-boot protection
- Dimension: 210 x 100 x 40 mm
- Weight: 0.540 kg with batteries

2.2 Operation

- 3-pole lead connection
- Working temperature range: -10° C to 50 °C
- Nominal temperature range: 0° C to 50° C
- Storage temperature range: -30° C to 55° C
- Climatic class: JWG as per DIN 40040 (3/73)
- Protective type: IP 30 as per DIN 40050 (7/80)

2.3 Power Supply

- External Power: 12V, AC/DC converter
- Batteries: Ni-Mh, 7.2V, 2k2 mAh
- Fast recharge cycle
- Automatic power on/off when no activity
- Operation time: up to 7 days on normal operation
- Continuous normal operation: 7h

2.4 Other

- Protective procedure to avoid accidents caused by a wrong selection (i.e. isolation instead of insulation)
- Self-calibration
- Rearmable Fusible based on PTC